

FIVE NEW RECORDS OF MARINE AMPHIPODS (CRUSTACEA: AMPHIPODA) FROM THE CANARY ISLANDS

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RESUMEN

Se citan por primera vez para el archipiélago las especies de gammáridos: *Animoceradocus semiserratus* (Bate, 1862), *Leucothoe incisa* (Robertson, 1892), *Monoculodes carinatus* (Bate, 1857), *Peltocoxa* cf. *damnoniensis* (Stebbing, 1885) y *Peltocoxa* sp. Se aportan datos sobre fauna acompañante y de distribución geográfica de estas especies.

Palabras clave: Crustacea, Amphipoda, *Animoceradocus*, *Leucothoe*, *Monoculodes*, *Peltocoxa*, islas Canarias, Océano Atlántico.

ABSTRACT

The gammarid species *Animoceradocus semiserratus* (Bate, 1862), *Leucothoe incisa* (Robertson, 1892) *Monoculodes carinatus* (Bate, 1857), *Peltocoxa* cf. *damnoniensis* (Stebbing, 1885) and *Peltocoxa* sp. are first recorded for the Canary archipelago. Data of macrofaunal taxonomic composition in sampling locations and biogeographic information from the studied species are provided.

Key words: Crustacea, Amphipoda, *Animoceradocus*, *Leucothoe*, *Monoculodes*, *Peltocoxa*, Canary Islands, Atlantic Ocean.

INTRODUCTION

Benthic amphipods (gammarids and caprellids) are well represented in benthic samples, specially as epifaunal componentes of intertidal and subtidal macroalgae (EDGAR & KLUMPP [6]). This group is mainly composed by surface-deposit feeders, though some species could be scavengers, predators or even suspensivorous (BLANKENSHIP & LEVIN [2]).

In the last decades, amphipods have being considered as sensitive organisms to man-induced perturbations, such as, pipelines, desalination plants, coastal eutrophication, etc. (CONRADI [4], GÓMEZ-GESTEIRA & DAUVIN [7]). Thus, taxonomic studies are necessary to provide data about species composition in benthic samples from the Canary archipel-

ago. Currently, amphipod biodiversity records are still far from other extensively studied areas (e.g. Eastern Atlantic coasts and Mediterranean Sea).

During monitoring assessment studies conducted in the Canary Islands, several specimens of five unpreviously recorded amphipod species were found. These individuals belonged to the species *Animoceradocus semiserratus* (Bate, 1862), *Leucothoe incisa* (Robertson, 1892), *Monoculodes carinatus* (Bate, 1857), *Peltocoxa* cf. *damnoniensis* (Stebbing, 1885) and *Peltocoxa* sp.

MATERIAL AND METHODS

The studied material was collected from shallow rocky substrates and subtidal sandy seabeds. Samples from rocky bottoms were taken by scuba divers by means of a scraper used to get all macroalgae in 25 × 25 cm quadrat. The scraped material was kept in a plastic zipped bag, with an identification code. Sediment samples were collected by means of a “Cak Foster” dredge, 28-litres capacity. All samples (scrapes and dredges) were fixed by 4% formaldehyde during 48 hours and then, sieved in a 0.5 mm mesh size. Specimens were separated under a stereomicroscope and preserved in 70° ethanol. Specimens were identified by means of a stereomicroscope Nikon SMZ-800 and pictures were taken with an attached camera (Canon EOS-500D).

The studied specimens were stored in the invertebrate collection of CIMA (Centro de Investigaciones Medioambientales del Atlántico SL).

TAXONOMY

Order AMPHIPODA Latreille, 1816
Family Maeridae Krapp-Schickel, 2008
Genus *Animoceradocus* Karaman, 1984

Animoceradocus semiserratus (Bate, 1862)
(Fig. 1)

Studied material.- Playa Paraíso (S Tenerife), coordinates 28°12'06"N/16°78'05"W, 23 m, coarse sand and maërl seabeds, 30 ind. Playa Paraíso (S Tenerife), coordinates 28°12'08"N/16°78'09"W, 32 m, medium sands and maërl seabeds, 52 ind. Callao Salvaje (S Tenerife), 28°12'81"N/16°78'56"W, 27 m, medium sands and maërl seabeds, 31 ind.

Distribution.- East Atlantic Ocean; North Sea. Mediterranean Sea (BACHELET *ET AL.* [1]). This species is mainly littoral, being recorded from the intertidal to 60 m depth. *L. incisa* is more abundant as an epifaunal component of macroalgae, specially *Peysonnelia* and in maërl beds composed by *Lithothamnium* (LOURIDO *ET AL.* [10]).

Accompanying fauna.- This amphipod species was collected in sediments dominated by the decapods *Xantho pilipes* and *Pagurus anachoretus*, as well as, the molluscs *Bittium incile* and *B. latreillii*.

Family Leucothoidae Dana, 1852

Genus *Leucothoe* Leach, 1814

Leucothoe incisa (Robertson, 1892)

(Fig. 2)

Studied material.- Off Paraje los Haches (SE Lanzarote), coordinates: 28°86'91"N/13°74'03"W, 12 m, patches of *Cymodocea nodosa* meadows dominated by fine sands, 2 ind.; Punta de Garajao (SE Lanzarote), coordinates 28°87'32"N/13°73'13"W, 25 m, Mixed *Caulerpa* meadows dominated by fine sands, 2 ind; Playa Quemada (SE Lanzarote), coordinates 28°89'94"N/13°72'78"W, 21 m, *Caulerpa racemosa* meadows, 2 ind.

Distribution.- East Atlantic coast, North Sea and Mediterranean Sea (MYERS & COSTELLO [11]). The depth range of this species is from the intertidal to 60 m, being more frequent on sandy and muddy seabeds (CACABELOS *ET AL.* [3]).

Accompanying fauna.- This amphipod species was found in sediments dominated by the amphipods *Ampelisca brevicornis*, *Harpinia antennaria* and *Urothoe marina*, the decapod *Pagurus anachoretus*, the mollusc *Bittium latreillii*, the ostracod *Cypridina mediterranea* and the tanaid *Apeudes talpa*.

Family Oedicerotidae Liljeborg, 1865

Genus *Monoculodes* Stimpson, 1853

Monoculodes carinatus (Bate, 1857)

(Fig. 3)

Studied material.- San Sebastián, La Gomera, coordinates 28°05'00"N/17°06'39"W, September 2008, 9 m depth, fine sands, 4 ind.

Distribution.- North East Atlantic, from Norway to the Mediterranean Sea (BACHELET *ET AL.* [1]). North Sea. This species has been collected in fine sandy subtidal seabeds (5-80 m) (JONES [9]).

Accompanying fauna.- The studied sample was dominated overwhelmingly by the tanaid *Apeudes talpa* (266 ind). Other macrofaunal species with consistent abundances were the amphipod *Harpinia antennaria* (23 ind) and the cumacean *Iphinoe canariensis* (11 ind).

Family Cyproideidae Barnard, 1974

Genus *Peltocoxa* Catta, 1875

Peltocoxa cf. damnoniensis (Stebbing, 1885)

(Fig. 4)

Studied material.- San Andrés, Santa Cruz de Tenerife, coordinates 28°30'36"N/16°10'14"W, January 2008, 25 m depth, very fine sands, 2 ind.

Distribution.- Atlantic Ocean. Epifauna component of the alga *Corallina elongata* (IZQUIERDO & GUERRA-GARCÍA [8]).

Accompanying fauna.- The studied sample was characterized by high abundances of the tanaid *Aapseudes talpa* (140 ind), the mollusc *Bittium latreilii* (97 ind) and the amphipod *Harpinia antennaria* (70 ind). Other species with consistent abundances were the tanaid *Lep-tochelia dubia* (32 ind) and the caprellid *Phtisica marina* (24 ind).

Peltocoxa sp.

(Fig. 5)

Studied material.- Playa Quemada, Lanzarote, coordinates 28°53'25"N/13°44'44"W, September 2011, 2 m depth, rocky substrate dominated by corallinaceans and *Halopteris scoparia*.

Accompanying fauna.- The studied sample was dominated by the amphipod *Apherusa bispinosa* (1,571 ind) and the isopod *Carpias* cf. *minutus* (867 ind). The remaining species obtained low densities (< 500 ind), such as, the amphipods *Aora typica* (462 ind) and *Stenothoe marina* (321 ind).

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Figure 1.- *Aminoceradocus semiserratus* (Bate, 1862). A. General aspect. B. Male gnathopod 2.

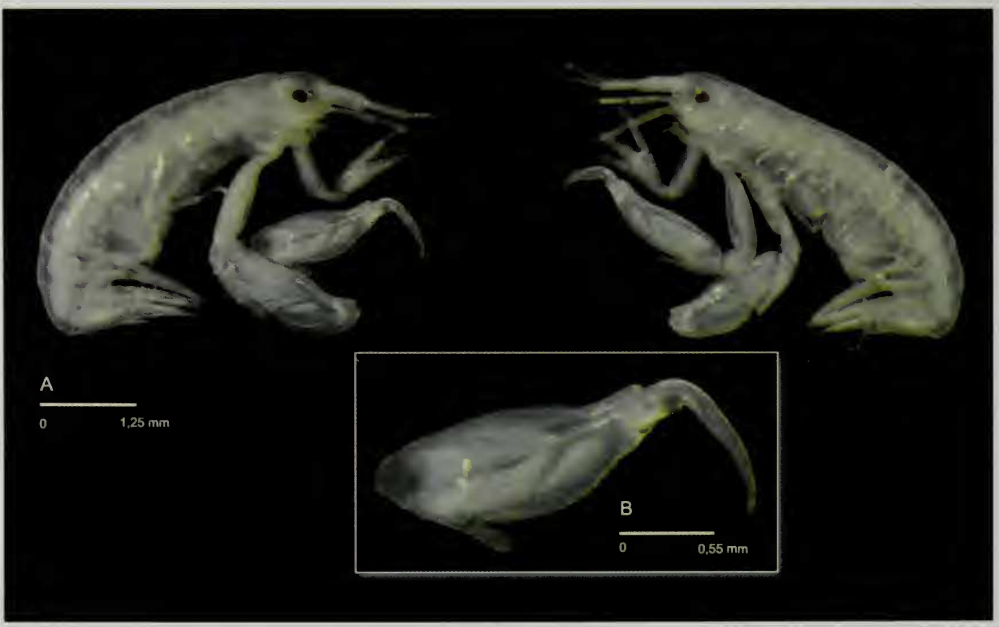


Figure 2.- *Leucothoe incisa* (Robertson, 1892). A. General aspect. B. Male gnathopod 2.



Figure 3.- *Monoculodes carinatus* (Bate, 1857). A. General aspect. B. Anterior end and gnathopod 2.

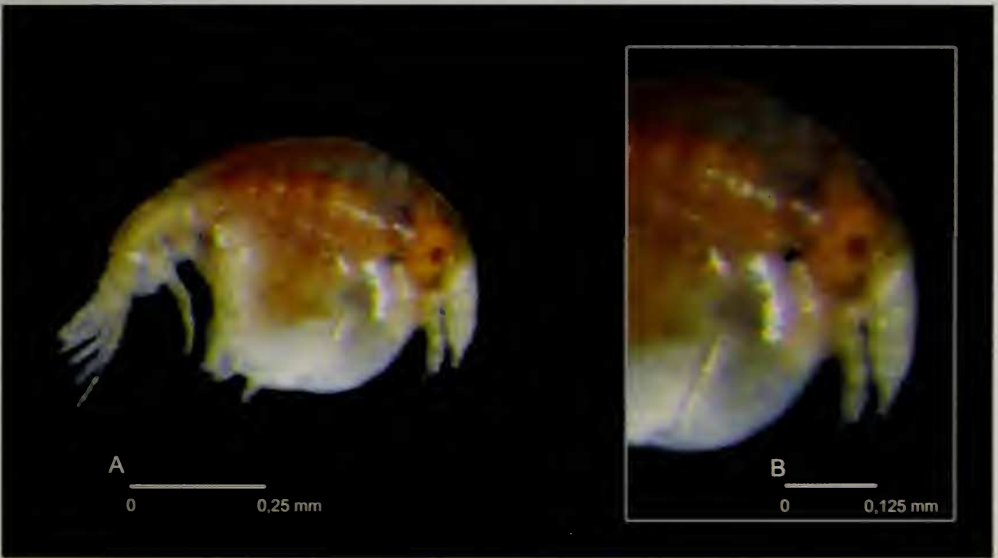


Figure 4.- *Peltocoxa cf. dammoniensis* (Stebbing, 1885). A. General aspect. B. Anterior end.

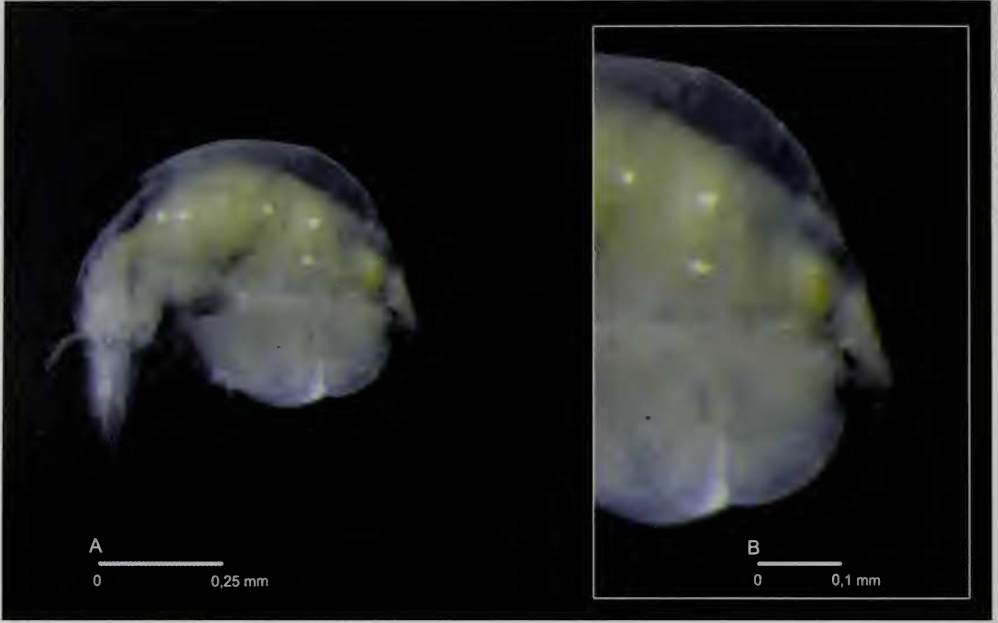


Figure 5.- *Peltocoxa* sp. A. General aspect. B. Anterior end.